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HP Remote Graphics Software Release Notes  
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Introduction  
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This document comprises the release notes for HP Remote Graphics Software. Topics covered in this document include the following:

1. What's new? - including defect fixes
2. Known Issues and Limitations
3. Security Issues

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What's new in Release 7.0.0?  
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RGS Release 7.0.0 comes with a new list of supported platforms. Please consult the support matrix to ensure that your platform is supported.

The following list describes high-level changes.

New Features:

- 1: Upgraded HP Velocity to version 2.1. This version offers further improved connectivity and protection compared to previous versions. Traffic protected by HP Velocity now uses UDP, rather than TCP. The new version of HP Velocity is not compatible with older versions of HP Velocity. Only connections between HP RGS 7 senders and receivers will benefit from HP Velocity 2.1.
- 2: A host of new tablet features has been introduced:
  - a. Gesture-to-hotkey mapping. Users can assign a series of keystrokes to a gesture via the new gestures tab in the UI.
  - b. Virtual Mouse. The virtual mouse allows for precise onscreen mouse control on a tablet.
  - c. Zoom & Pan. Tablet users are able to zoom and pan around the sender desktop.

3: Various improvements to the user interface for touch optimization and improved toolbar control.

#### Defect Fixes:

1: Remote USB installation on 64-bit Windows Embedded has been fixed.

2: Virtual audio driver is installed on blade systems more consistently.

3: Connections no longer end immediately when a Windows Remote Desktop Service session is created by another application. This should improve the way RGS interacts with other remote desktop applications.

#### Known Issues:

1: When an RGS sessions ends, it is possible that the sender monitor will remain blanked. The problem can be resolved by connecting again with RGS and then disconnecting normally.

2: When using nVidia graphics with 10-bit monitors, older drivers can cause the image to have color problems. This issue can be resolved by setting a property. Some recent nVidia drivers solve this problem.

3: On Windows touch devices, increasing the sender display resolution while connected can cause problems with tapping the confirm resolution dialog box. Use a USB mouse or the virtual mouse to click the button.

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#### What's new in Release 6.0.5?

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RGS Release 6.0.5 is a release for all supported products and platforms. The following list describes the changes.

#### New Features:

1: Add support for ThinPro 4.4.

2: The use of the installer command line has changed. See the user guide for details.

#### Defect Fixes:

- 1: Fixed an issue that resulted in the receiver displaying UI elements when it should not when used via the COM API.
- 2: Fixed issues where keys on the Bloomberg STB100 keyboard were being mishandled.
- 3: Fixed an issue that prevented resizing of the receiver display window.
- 4: Fixed a repaint issue that could occur when maximizing the receiver display window.

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#### What's new in Release 6.0.4?

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RGS Release 6.0.4 is a release for all supported products and platforms. The following list describes the changes.

##### New Features:

- 1: Added support for ZBook to the sender preload license.
- 2: Added a sender property that allows collaboration without displaying a collaboration authorization dialog (see `rgsenderconfig`).

##### Defect Fixes:

- 1: Fixed a crash in the RGS X Server extension module.
- 2: Fixed an issue that may prevent remote USB from functioning when USB 3.0 is present.

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#### What's new in Release 6.0.3?

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RGS Release 6.0.3 is a release for all supported products and platforms. The following list describes the changes.

##### New Features:

- 1: Added support for Z230 to the sender preload license.

##### Defect Fixes:

- 1: Fixed performance, quality and latency problems related to Advanced Video Compression.
- 2: Fixed a security issue related to screen blanking.
- 3: Fixed an issue that caused loss of window focus when using a mouse scrollwheel.
- 4: Fixed an issue that could result in a bluescreen on ElitePad 900.
- 5: Fixed an issue that prevented the use of the IsMenuBarEnabled property on the receiver.

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#### What's new in Release 6.0.2?

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RGS Release 6.0.2 is a release for all supported products and platforms. The following list describes the changes.

#### New Features:

- 1: Added support for Advanced Video Compression in directory mode.
- 2: Added support for RHEL 6.4.
- 3: Enabled support for ThinPro 3.3, 4.1, 4.2 and 4.3.

#### Defect Fixes:

- 1: Fixed an issue with the Shift+Space+M key sequence not raising the Control Panel.
- 2: Fixed a black screen issue on Linux.
- 3: Fixed an issue where the sender GUI process would not start on Linux.
- 4: Fixed an issue with the Bloomberg Keyboard.

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#### What's new in Release 6.0.1?

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RGS Release 6.0.1 is a release for all supported products and platforms. The following list describes the changes.

Defect Fixes:

- 1: Resolved an issue with the Preload license that caused the sender to fail license checkout.
- 2: Resolved an issue with activation of Advanced Video Compression.

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What's new in Release 6.0.0?  
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RGS Release 6.0.0 is a release for all supported products and platforms. The following list describes the new features.

New Features:

- 1: RGS has a new UI look and feel. All UI components associated with RGS have been enhanced to improve aesthetics and usability.
- 2: The RGS sender and receiver can be configured to encode screen updates with an H.264 codec. H.264 consumes less bandwidth when compared with legacy codecs in many situations. H.264 settings are available in the Performance tab of the Settings panel under "Advanced Video Compression".
- 3: The RGS sender and receiver provide an install-time option to enable WAN optimization. This optimization provides improved network performance when packet loss and latency are present in the environment.
- 4: Added support for Microsoft Windows 8 (desktop mode) for both Sender and Receiver.

Defect Fixes:

- 1: Resolved a performance problem that can result if an application programmatically controls the cursor position on the sender.

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What's new in Release 5.4.8?

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RGS Release 5.4.8 is a release for all supported products and platforms.  
The following list describes the new features and defect fixes.

New Features:

- 1: Linux Screen blanking
- 2: Support for SLED11 Sender
- 3: Support for RHEL6.2 Sender
- 4: IP address filtering
- 5: Linux Audio enhancements
- 6: ThinPro 4.1 Kernel module
- 7: Linux "easy login" equivalent

Defect Fixes:

- 1: Resolved issue with multiple connection attempts required after RDP Disconnect on XP with DP Gina module
- 2: Resolved issue when 4 display used in L shape with Receiver resolution and receiver Layout matched, the receiver screen did not placed it self properly.
- 3: Resolved issue when RGS remote clipboard feature cannot work, when CATIA started
- 4: Resolved issue when CATIA Software exception when connecting through RDP -Clients affected – (CATIA SW Install only)
- 5: Resolved issue with advance cursors disappearing on some applications
- 6: Resolved issue when Sender hangs after unexpected disconnect

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What's new in Release 5.4.7?  
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RGS Release 5.4.7 is a release for all supported products and platforms.  
The following list describes the new features and defect fixes.

Defect Fixes:

- 1: Resolves a sender deadlock when logging out of the Windows desktop.
- 2: Resolves a sender crash when using a usb remote Bloomberg keyboard as an audio playback device.
- 3: Resolves a multimonitor left edge snap problem.
- 4: Resolves Linux usb remote Bloomberg keyboard hang issue.
- 5: Resolves Japanese font bug for PAM message dialog.

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What's new in Release 5.4.6?  
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RGS Release 5.4.6 is a release for all supported products and platforms.  
The following list describes the new features and defect fixes.

New Features:

- 1: The RGS sender on Windows Vista and Windows 7 now supports Single Sign-On and Easy Login.
- 2: The Windows sender installer enforces prerequisites when enabling Single Sign-On or Easy Login on Windows XP. These are: enable Crtl-Alt-Del, disable Fast User Switching, and disable AutoLogon.

Defect Fixes:

- 1: Resolves a sender crash on Red Hat Enterprise Linux version 6.
- 2: Resolves a rare Linux sender crash during authentication.
- 3: Resolves a Windows receiver problem where cursors could be displayed with incorrect colors when the sender is Linux or HP-UX.

4: Resolves an occasional Windows sender deadlock when stealing a desktop session with match layout enabled.

5: Linux receiver remote USB support updated for future ThinPro releases.

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### What's new in Release 5.4.5?

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RGS Release 5.4.5 is a release for all supported products and platforms. The following list describes the new features and defect fixes.

#### New Features:

- 1: The RGS sender and receiver are supported on Red Hat Enterprise Linux version 6.
- 2: The receiver has new "Experience" controls in the General tab of the Advanced menu. The pre 5.4.5 behavior is Fixed image quality. Beginning with 5.4.5, the Adjust image quality mode will dynamically manage the quality to attempt to maintain the specified minimum update rate. The sender and receiver must both be 5.4.5 to enable Adjust image quality mode.
- 3: The Linux sender is supported on VMware ESX virtual machines.
- 4: Linux cursor position snap operations are now detected and reflected on the RGS receiver. This behavior is controlled by the property Rgreceiver.IsMouseSyncEnabled.
- 5: The distribution media includes a Blade Workstation virtual audio driver in source form for Red Hat Enterprise Linux version 4 and 5.
- 6: The receiver toolbar can be configured to display automatically when the cursor is near the top edge of the Remote Display Window. The feature is controlled by the Auto show toolbar checkbox in the General tab of the Advanced menu.
- 7: Added support for Vista and Windows 7 sender systems where the main display is not placed on the first display.
- 8: Added color cursor support to the Linux sender.



9: Allow the use of X server backing store with the Linux sender.

Defect Fixes:

- 1: Resolves a problem with the sender on Windows 7 where the Windows key + 'L' would not lock the screen.
- 2: Resolves a problem with the receiver on Windows where incorrect keys were generated on a Japanese keyboard when entering numbers.

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What's new in Release 5.4.2?

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RGS Release 5.4.2 is a release of the Windows sender and receiver.

Defect Fixes:

- 1: Resolves a Sender problem on Vista or Windows 7 with some color cursors having an incorrect hotspot when using the GPU display model. The minimum NVIDIA driver version that supports the GPU display model on Vista has been changed from 178.68 to 182.61.
- 2: The Windows installers no longer add duplicate firewall exceptions during product updates.
- 3: Resolves a problem with the sender where some key sequences such as alt-tab could be missed.
- 4: Resolves a rare case where the Receiver crashes on startup.
- 5: Resolves a rare case where the Sender could prevent system shutdown or reboot. This behavior has been seen only on Korean localizations of Vista and Windows 7 in combination with the Korean version of Office 2007.
- 6: Resolves an occasional sender crash when using the GPU display model and a session is taken over by a second receiver.

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What's new in Release 5.4.1?

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RGS Release 5.4.1 is a release of the Windows sender and receiver.

Defect Fixes:

- 1: Resolves a problem detecting and setting toggle keys (Caps Lock, Num Lock, Scroll Lock) on the sender.
- 2: Resolves a problem where the receiver would not exit when a COM receiver plugin was installed.
- 3: Resolves a problem configuring the RGS audio driver when installing or updating the sender from an RDP connection on a blade running Vista or Windows 7.
- 4: Resolves a problem configuring the mirror driver and USB drivers when updating (not installing) a Vista 64 or Windows 7 64 system.

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What's new in Release 5.4.0?

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RGS Release 5.4.0 is a release for all supported products and platforms. The following list describes the new features and defect fixes.

New Features:

- 1: The RGS sender and receiver are supported on Windows 7 Enterprise and Professional platforms.
- 2: The Windows receiver now supports file association with a MIME type. Files with the extension ".rgreceiver" are treated as RGS Receiver configuration files. When opened, the receiver is automatically started using the property values specified in the .rgreceiver file.
- 3: The Windows receiver has several per-session properties that allow the receiver to automatically connect to a specified sender using a specified username and password. PAM authentication is not supported. When connecting to a Linux sender the username and password properties are ignored.
- 4: The receiver has a new command line option "-config filename", which

specifies the name of a RGS Receiver configuration file.

5: The default value of the property

`Rgsender.Network.IsListenOnAllInterfacesEnabled` is now 1 (enabled)

The default value of `Rgsender.Network.Interface.0.IsEnabled` is now 0.

In addition to listening on all interfaces by default, the sender will listen on interfaces that are added or changed after the sender has started.

6: The sender and receiver include a lossless CODEC - JPEG-LS.

The codec is selected with the property

`Rgsender.ImageCodec.Preferred=JPEG-LS`.

7: The sender GUI for Linux senders now appears in the system tray instead of on the desktop.

8: Single Sign On does not require enabling Ctrl-Alt-Del to login.

9: The Linux receiver installer includes support for audio without manually building optional libraries.

10: The Linux sender installer disables the Composite extension as part of the X server configuration.

11: The Windows sender installer adds firewall exceptions for the sender.

12: The Windows sender / receiver support relative mouse moves for applications that manage the pointer location explicitly. The feature is toggled by the "g" hotkey on the receiver.

Defect Fixes:

1: The Comparitron display model now correctly displays cursors on a secure desktop and does not display cursors that are hidden.

2: Resolves a Linux sender abort upon login triggered by the "KillInitClients" behavior of desktop managers.

3: Japanese keyboard layouts on Linux receivers will now process the Yen symbol.

4: The Windows rgsender service now respects the Service Control Manager

recovery settings on Windows XP.

5: The sender clipboard now supports the same formats on Vista as it does on Windows XP.

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#### What's new in Release 5.3.3?

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RGS Release 5.3.3 is a release of the Windows sender for HP SkyRoom. This is a defect fix only release.

#### Defect Fixes:

1: Resolves a rare case where the Sender could prevent system shutdown or reboot. This behavior has been seen only on Korean localizations of Vista and Windows 7 in combination with the Korean version of Office 2007.

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#### What's new in Release 5.3.2?

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RGS Release 5.3.2 is a release of the Windows receiver. This is a defect fix only release.

#### Defect Fix:

1: Resolves an incorrect key generated by the shift-\ key sequence when using a Japanese keyboard.

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#### What's new in Release 5.3.1?

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RGS Release 5.3.1 is a release for Windows sender and receiver with installer changes for HP SkyRoom. Functionality is the same as 5.3.0.

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#### What's new in Release 5.3.0?

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RGS Release 5.3.0 is a release for all supported products and platforms. The following list describes the new features and defect fixes.

#### New Features:

- 1: The RGS sender is supported on Windows Vista Business and Enterprise platforms.
- 2: Linux sender supports bi-directional Cut and Paste operations. This support is for text only.
- 3: Support of Swedish keyboard localization.
- 4: Simplification of RGS licensing. There are now two types of licenses for RGS: RGS\_VDI which supports VMWare and RGS\_General which supports all other systems (including non-HP hardware running Windows).

Defect Fixes:

- 1: Windows sender supports large cursors (greater than 64x64).
- 2: Linux receivers on a system that does not support the X server MIT-SHM extension will correctly display setup mode, networking connection warnings and remote cursor tracking.
- 3: Exiting the Linux sender will not leave the rgsender process in the zombie state.
- 4: Resolves intermittent failure when starting the Windows sender GUI.
- 5: Resolves intermittent problems when transitioning between RDP and RGS.
- 6: Resolves an authorization problem when connecting.
- 7: Windows receiver correctly displays masked color cursors and monochrome cursors of sizes not divisible by 4.

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What's new in Release 5.2.7?

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RGS Release 5.2.7 is a release of the Windows sender. The following list describes the new features and defect fixes.

Defect Fixes:

- 1: Resolves an inability to run the sender after a reboot when connected

to a Windows domain.

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## What's new in Release 5.2.6?

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RGS Release 5.2.6 is a release for all supported products and platforms. The following list describes the new features and defect fixes.

### New Features:

- 1: The behavior of the image codec can be changed to lower network bandwidth and CPU utilization at the expense of image quality. The behavior is controlled by the "Boost" checkbox in the Remote Display Window Toolbar and the property `Rgreceiver.ImageCodec.IsBoostEnabled`.
- 2: The receiver Display View Window can be iconified with the "n" hotkey and disconnected with the "c" hotkey.
- 3: Windows Receiver now supports auto-remoting of specific USB devices. Auto remoted devices are used locally on the receiver and automatically remoted to the sender when an RGS connection is established.

### Defect Fixes:

- 1: Resolves a bluescreen on the sender when connecting from receiver with USB devices attached prior to connecting.
- 2: Resolves an inability to establish an RGS connection after connecting to the same sender with RDP and allowing the screensaver to start.
- 3: Logoff from a Linux sender disconnects the receiver correctly instead of waiting for expiration of the network timeout.
- 4: Resolves a Windows sender hang with simultaneous access of composite or multiple USB devices.
- 5: Windows rgsender and receiver executables are now signed for compatibility with strict anti-virus programs.
- 6: Resolves a green cast when using a Linux sender configured with a

16 bpp TrueColor visual.

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#### What's new in Release 5.2.5?

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RGS Release 5.2.5 is a release for all supported products and platforms. The following list describes the new features and defect fixes.

##### New Features:

- 1: The port used for communication between the sender and receiver can be changed with the sender property `Rgsender.Network.Port`.
- 2: Windows cursor position snap operations are now detected and reflected on the RGS receiver. This behavior is controlled by the property `Rgreceiver.IsMouseSyncEnabled`.
- 3: The hostname of the Receiver system for each connection is now logged in the HPRemote event log of the Sender system.
- 4: The default sender maximum update rate is now 30 updates per second instead of unlimited to reduce network bandwidth and CPU utilization. To reinstate previous behavior, set `Rgsender.MaxImageUpdateRate=0`

##### Defect Fixes:

- 1: The RGS sender respects Windows commands to hide the cursor. This eliminates a double cursor seen in several applications.
- 2: Resolves intermittent startup of the sender GUI on Linux systems.
- 3: Resolves a sender hang on RHEL4 Linux systems.
- 4: Improved Support for DirectDraw applications on non-primary displays.
- 5: The RGS receiver now shuts down cleanly if a connection client terminates unexpectedly.
- 6: Resolves an authentication problem when using Easy Login.

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#### What's new in Release 5.2.4?

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RGS Release 5.2.4 is a release of the Windows receiver and sender.  
The following list describes the new features and defect fixes.

Defect Fixes:

1. RGS sender running on a Blade PC would incorrectly attempt to acquire a Blade Workstation license. The fix corrects rgsender so that it requests a Blade PC license when running on Blade PC hardware.

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What's new in Release 5.2.3?

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RGS Release 5.2.3 is an early access release of the Windows sender.

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What's new in Release 5.2.2?

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RGS Release 5.2.2 is a release of the Windows receiver.

New Features:

1. Add support for the LLC504 Penpower HID device.

Defect Fixes:

1. Receiver USB hub filter driver signed for Vista64.
2. Thin Client no longer re-enumerates USB bus on subsequent reboots once RGS Receiver is uninstalled.

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What's new in Release 5.2.1?

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RGS Release 5.2.1 is an early access release of the Windows sender and receiver for use only with the HP SkyRoom product.

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What's new in Release 5.2.0?

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RGS Release 5.2.0 is a release for all supported products and platforms.  
The following list describes the new features and defect fixes.



## New Features:

1. The sender uses FlexLM to enable license validation. For information regarding RGS use of FlexLM, please refer to the "HP Remote Graphics Software Licensing Guide" by visiting [http://www.hp.com/support/rgs\\_manuals](http://www.hp.com/support/rgs_manuals).
2. RGS supports USB audio devices and USB video devices. For more information regarding all of the new devices that are now supported, please refer to the "HP Remote Graphics Software 5.2 User Guide" by visiting [http://www.hp.com/support/rgs\\_manuals](http://www.hp.com/support/rgs_manuals).
3. The Linux sender supports Norwegian keyboards.
4. The Windows sender supports Traditional Chinese, Korean, and Russian keyboards.
5. The Linux sender supports remote audio for devices that support audio capture. See the documentation for details.
6. RGS supports sender-to-sender cut & paste. Cut & paste is supported between Windows senders only. There is no cut & paste support for any Linux sender.
7. The Linux sender supports match receiver resolution.
8. The receiver supports Windows Vista.

## Defect Fixes:

1. Developers using the RGS SDK may have experienced a crash when calling "Stop" using the COM automation interface. This has been fixed.
2. Developers using the RGS SDK may have experienced an intermittent hang when running under COM automation. This has been fixed.
3. Developers using the RGS SDK may have experienced a crash in the receiver when the user has an expired password in COM automation mode.
4. Resolved a hang when the second display on the sender is set as the primary display.

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## What's new in Release 5.1.6?

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RGS Release 5.1.6 is a release of the Linux sender and Windows and Linux receivers. This is a defect fix only release.

### Defect Fixes:

1. With Linux senders, screen resolution changes initiated by applications executing on the sender system are now handled correctly.
2. Enablement for Linux senders on the xw2x220c blade. Older versions of the Sender will cause this blade to hang or reboot.
3. In a SAM environment, resolves a receiver crash that could occur when the connection client stops the receiver application.
4. In a SAM environment, resolves an issue that causes the receiver to exit after displaying a dialog box. This issue can be encountered when connecting to a system as a user whose password is expired. The symptom is that the change password dialog is never displayed.
5. Resolves a defect with borderless window placement in RHEL5.

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## What's new in Release 5.1.5?

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RGS Release 5.1.5 is a release of all supported products and platforms. The following list describes the new features and defect enhancements.

### New Features:

1. The Receiver will now be able to connect to a Sender that resides behind a router that uses Network Address Translation.
2. Support was added for the Swiss French, Czech Qwerty and Czech Qwertz keyboards.
3. The IP address of the Receiver system for each connection is now logged in the HPRemote event log of the Sender system.

4. Support has been added for Red Hat Enterprise Linux Version 5.2 on 64-bit x86 architectures, with the receiver also being supported on 32-bit x86 architectures.

Defect Fixes:

1. Numerous screen-blanking defects have been fixed: 1) Multi-monitor senders now blank all screens, 2) monitors are more reliably unblanked when RGS disconnects, 3) Blanking is now supported on Windows XP 64.

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What's new in Release 5.1.4?  
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RGS Release 5.1.4 is a release of the Windows Sender only. This release resolves a defect with the Windows Sender.

Defect Fixes:

1. Resolved an intermittent crash in the Windows Sender that could occur after a receiver disconnect.

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What's new in Release 5.1.3?  
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RGS Release 5.1.3 is a release of all supported products and platforms. The following list describes the new features and defect enhancements.

New Features:

1. The Sender is no longer supported on Novell SUSE Linux Enterprise Server 9.
2. The Receiver is now supported on Red Hat Enterprise Linux Version 4 for 32-bit x86 platforms in addition to 64-bit x86 platforms.
3. RGS Performance has been improved in a high latency environment.
4. A Remote Microphone is now supported in RGS.
5. Cut and paste has been added that will allow copying between

the receiver and sender clipboard on Windows platforms.

6. Command line options have been added to the installers for the Windows Receiver and Sender that enable easier automated installs.
7. Dynamic USB Session switching has been enabled. In previous versions of RGS, you must select the sender to use with remote USB before establishing any connections. Now you may change the sender for USB while connections are active.
8. The RGS installers have been enhanced to create an installer log file when the RGS Sender and RGS Receiver are installed. The install is logged to the files C:\TEMP\rgsenderInstaller.log and C:\TEMP\rgreceiverInstaller.log for the Sender and Receiver, respectively.
9. Smartcards are now supported via the HP System Allocation Manager (SAM).
10. Support for resolution matching on systems with multiple displays has been added.

#### Defect Fixes:

1. An issue with the Linux Sender failing to listen for connections on infiniband and other non-ethernet devices has been resolved. NIC Binding on a Linux Sender will now behave more similar to NIC binding on a Windows sender.
2. The Easy Login feature now works more reliably in a Novell Netware Environment.
3. An issue with the sender sometimes failing to start on Windows XP after a system reboot has been resolved.
4. An issue where certain custom trader keypads could cause the receiver to hang has been resolved.

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What's new in Release 5.1.2?  
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Release 5.1.2 is a release of the RGS Receiver on all supported

platforms. The following list describes the new features and defect enhancements.

Defect Fixes:

1. Performance when using a multi-monitor setup has been improved.

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What's new in Release 5.1.1?

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RGS Release 5.1.1 is a release of all supported products and platforms. The following list describes the new features and defect enhancements.

New Features:

1. The RGS Sender now supports remote audio and remote USB on Windows XP 64.
2. The RGS Receiver now supports remote USB on Windows XP 64.
3. The RGS Sender for Windows now has better support for multi-monitor configurations.
4. The RGS Sender may now be installed from within a Microsoft Remote Desktop Connection.

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What's new in Release 5.1.0?

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RGS Release 5.1.0 is a release of all supported products and platforms. The following list describes the new features, supported platform changes, and defect enhancements.

1. The RGS Sender supports the ability to specify which network interfaces are used to accept connections from RGS Receivers (this is called NIC Binding). The default behavior is to listen on the "first" network interface reported by the operating system.
2. The receiver and sender are now supported on Red Hat Enterprise Linux Version 4 for 64-bit x86 platforms.

3. Support for changing expired passwords on a windows sender has been added. In previous versions of RGS, once a user's password expired, the receiver would display an Authentication Failed dialog. Now, the user is allowed to change their password and complete the connection to the sender.
4. A new product, RGS PC, is available. It is targeted at the commercial desktop PC usage model. The original RGS Workstation version is targeted at the high performance workstation usage model.

Defect Fixes:

1. An issue with RGS/RDP interoperability has been resolved that would sometimes not allow future RGS connections after a Remote Desktop connection.
2. An issue with the biometric device on Bloomberg keyboards has been resolved.
3. Disconnects that could occur when multiple remote USB storage devices are simultaneously connected and copying large amounts of data has been resolved.

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What's new in Release 5.0.0?  
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RGS Release 5.0.0 is a major release. The following list describes the new features, supported platform changes, and defect enhancements.

1. Remote USB support for a wide variety of new USB devices has been added. The list of supported USB devices in RGS is available at the following URL:

<http://www.hp.com/go/rgs>

2. Remote USB support has been added to the RGS Receiver for Windows. Remote USB continues to be supported on a HP Blade Workstation Client and RGS Sender for Windows.
3. USB Access Control List (ACL) has been added to the RGS Sender for Windows.

4. USB device connects, disconnects, and denied devices are logged by the RGS Sender for Windows in the Windows Event Log.
5. Performance of the graphics image processing algorithms have been improved by up to 2X.
6. Console blanking blacks out the screen of a monitor attached to the Sender if a monitor is connected and the primary user is connected. Note, this is only supported for specific graphics adapters and hardware platforms. See the User's Guide for more details. If it is not possible to blank the monitor a warning dialog will be displayed on the desktop to inform the user of the possibility of eavesdropping. In previous releases if a monitor was attached to the system running the RGS Sender the monitor was not blanked. The RGS Sender property "Rgsender.IsBlankScreenAndBlockInputEnabled" is provided to disable blanking.
7. The RGS Receiver can be used to automatically adjust the display resolution of the Sender system to match the display resolution of the receiver system if possible.
8. Support for the following keyboards has been added when using the RGS Sender for Windows in combination with any new RGS Receiver.
  - a. Brazilian Portuguese
  - b. Portuguese
  - c. French Belgian -- Français (Belgique)
  - d. Simplified Chinese
  - e. Dutch Netherlands
  - f. Turkish-Q
  - g. Latin American Spanish
  - h. Japanese
9. Support for Novell SUSE Linux Enterprise Server 9 on AMD64 and Intel64 processor platforms has been added for the RGS Sender for Linux on HP Blade Workstations only. The RGS Sender for Linux on x86 processor platforms has been delayed until a future release. The RGS Sender for Linux is not supported on non-HP platforms.
10. Support for the RGS Sender for Linux on all versions of Red Hat Linux has been delayed until a future release. Previously, the RGS Sender for

Linux was supported on Red Hat Enterprise Linux WS3 32-bit & 64-bit.

11. Support for Linux Receivers has been delayed until a future release.
12. The Linux Sender installers have been improved to automatically configure the PAM configuration files, XF86Config and xorg.conf files.
13. The RGS connection will not be disconnected until after log off has been fully completed when using the RGS Sender for Windows when either Easy Login (ELO) or Single Sign-on (SSO) is enabled if the Sender property

`Rgsender.IsDisconnectOnLogoutEnabled=1`

is set to the default value. In previous releases the disconnect may occur early and not allow the user to close applications or the Windows log off sound may be prematurely cut-off.

14. Users with Administrator privileges can now connect to a RGS Sender for Windows when the desktop is locked. Then they can log off the logged in user and then login as a different user. In previous releases it was not possible for a different user to connect to another users locked desktop.
15. If a user is connected as User A and the property `IsDisconnectOnLogoutEnabled=0` and the user logs off the connection will not be disconnected. When another user logs in using the same RGS connection, for example as User B, the connection will be allowed to persist if single sign-on or easy login is active and easy login is supported by default or force enabled. Previously, the connection would be disconnected.
16. The `rgadmin` utility has been enhanced to allow the RGS Sender GINA module (`hprgina.dll`) to be chained with other third party GINA modules.
17. All Receiver properties now have an "IsMutable" suffix specifier which allows the corresponding user-interface controls to be deactivated when disabled.
18. The RGS Sender for Windows is now supported on the HP BladeSystem bc2000 and bc2500.



19. RGS for HP-UX has been discontinued.

Defect Fixes:

1. A defect where the screen could become corrupt if the display properties have been configured to enable "Microsoft Windows Dual Screen" on a Sender running on a Windows system has been resolved.
2. If single sign-on (SSO) is active and the same user connects using another Receiver while their previous connection is open, the previous connection will be disconnected without locking the desktop. Previously, the desktop would always be locked and the user would be required to enter their credentials again to unlock the desktop.
3. The rgdiag utility has been extended to detect Windows Firewall Group Policies in addition to firewall policies set through the Windows Firewall Control Panel Applet.
4. The default key repeat behaviour has been modified in the RGS Receiver for Linux from issuing ((down, up), (down, up), ...) key sequences to issuing (down, down, down, ...) key sequences. This may allow applications such as the Pinball application on Windows to work correctly.
5. Non-US characters in a user name, password or domain dialog/field now work. In previous releases non-US characters may have failed.

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Known Issues and Limitations  
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- The Aero desktop is supported on Windows Vista and Windows 7 senders only with NVIDIA graphics cards that have native DX10 support. Windows Vista systems require driver version 182.61 and later. Windows 7 systems require driver version 191.56 and later.

- Vista and Windows 7 will perform session operations that are outside the control of RGS. When RGS displaces an existing RDC connection, the desktop may enter into a temporary logged in and unlocked state due to these operations. The user should exercise caution in situations where even a temporarily unlocked desktop is a security concern. This issue can be avoided by logging out of the RDC connection before establishing an

RGS connection.

- The RGS sender does not support video overlay planes. Some media players that use video overlay planes will not be displayed properly. This can often be resolved by disabling the use of video overlay planes in the media player.

- When a password is not set on a Windows Sender you will not be able to authenticate. To resolve this you must set a password.

- If gamma correction is being applied on the Sender it will not be applied in the Receiver.

- Full-screen crosshair cursors on Linux sender are not visible. Please refer to the User's Guide under Troubleshooting Known Issues and Limitations for additional information and workarounds.

- Starting the X Server manually using "startx" is not supported with HP Remote Graphics using a Linux Sender because startx does not support Pluggable Authentication Module (PAM) session management.

- The RGS Sender for Linux does not support the experimental Xgl server.

- The RGS Sender for Linux does not support AIGLX.

- Full-screen Windows applications, such as DOS prompts and games, are not supported. If you attempt to open a full-screen DOS window, the window will be reset to the normal size.

- The Linux sender does not correctly remote applications using ARGB visuals presented by the Composite extension. As of 5.4, the customization step of the install process disables the extension. These visuals can be hidden from an application by setting the environment variable `XLIB_SKIP_ARGB_VISUALS=1`. The visuals can be completely removed by disabling the Composite extension.

- The Linux Gnome Desktop Manager interferes with linux match receiver resolution. The GDM login screen does not repaint as expected when the screen is resized due to match receiver resolution. GDM can store screen resolution preferences on a per-user basis. The resolution can be changed by GDM upon user login.

- Windows sender screen blanking can fail silently on devices that report success of the SetDeviceGammaRamp call but do not actually succeed. Setting brightness or gamma with device control panel applications can make blanked displays viewable.

- The input method editor has been disabled in the password field of the RGS authentication dialogs. To enable the IME, see the property Rgreceiver.IsInputMethodForPasswordFieldEnabled.

- A receiver log file may not be generated for a user if their username contains a non-ascii character. A log file location with only ascii characters may be specified in the 'Logging' tab of the RGS Receiver GUI.

- When an RGS sessions ends, it is possible that the sender monitor will remain blanked. The problem can be resolved by connecting again with RGS and then disconnecting normally.

- When using nVidia graphics with 10-bit monitors, older drivers can cause the image to have color problems. This issue can be resolved by setting a property. Some recent nVidia drivers solve this problem.

- On Windows touch devices, increasing the sender display resolution while connected can cause problems with tapping the confirm resolution dialog box. Use the virtual mouse to click the button.

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## Security Issues

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- If User A connects to a system and then logs in as another user then User A will be disconnected, but the system will now be logged in. Currently, on a login event, all users that do not match the user logging into the system are disconnected by design.